To: 'Cacciatore, David'[David.Cacciatore@CBIFederalServices.com]; Rodriguez,

Dante[Rodriguez.Dante@epa.gov]; Dave Davis[drdavis@blm.gov]

Cc: Adams, Martha[Martha.Adams@CBIFederalServices.com]

From: Jeryl Gardner

Sent: Tue 2/28/2017 8:12:18 PM

Subject: RE: Anaconda ROD Clarification Comments

....

Thanks for the clarifications and research, David.

Well done!

Jeryl

Jeryl R. Gardner, P.E., C.E.M.

Abandoned Mine Lands Program Manager

Bureau of Corrective Actions, NDEP 901 S. Stewart St., Ste 4001 Carson City, NV 89701 775-687-9484 jgardner@ndep.nv.gov



From: Cacciatore, David [mailto:David.Cacciatore@CBIFederalServices.com]

Sent: Tuesday, February 28, 2017 12:07 PM **To:** Rodriguez, Dante; Dave Davis; Jeryl Gardner

Cc: Adams, Martha

Subject: Anaconda ROD Clarification Comments

Dante,

Below are the ROD clarifications based upon requests from the biweekly meeting on 2/21/17. Please let me know if you have any questions.

David

RTC Item 16: Revise Table 8.

Clarification: The following sentence should be added to the first footnote to clarify which cancer type the percent contributions are referring to:

"Percentages provided are contributions to cancer risks unless otherwise noted."

RTC Item 17: Clarify text. Jeryl recommended something like, "A qualitative evaluation versus

a quantitative evaluation typically involves..."

Also, Dante asked for Gayle to check the text that he added on page 2-23: "A qualitative evaluation typically involves comparison of contaminant concentrations to screening levels but does not calculate exposure dosage."

Clarification: This revised description of a qualitative evaluation is very good. Exposure dosage is not a typical term used in risk assessment but it simplifies the concept. Well done, Dante.

RTC Item 22: On page 2-28, there is a list of NFA items. Check to see if these are not included in the cost.

Clarification: Costs associated with each item on the bullet list is provided below. The cost table for the NFA alternative from Appendix D of the FS is attached for reference.

1) Fluid Management:

No capital costs.

O&M cost of \$79,748 (annual)

2) HLP perimeter Ditch Maintenance:

Capital cost to Install Drain Pipe, Drain Rock and Backfill Ditch: \$2,176,446

O&M cost: under Fluid Management O&M (annual)

3) Site Access Controls:

Capital cost to Install No-Climb fence installation around ponds: \$123,200

O&M cost: \$4,400 (annual)

4) Wildlife deterrents

Capital cost: Wildlife deterrents for all ponds: \$1,000

O&M cost: \$60,200 (annual)

Note other costs associated with NFA alternative include Implementation costs (project management, H&S, fees, indirect costs, out of scope) and five-year reviews.

RTC Item 45: The rate of 2.5 vertical feet per year. Jeryl asked that we check the Site Wide Monthly Reports for the Pit Lake information. He thinks this should be less than 1 foot per year.

Clarification: The rate of the water level in the pit increasing in elevation was 2.5 feet annually

in the FS; however, when I looked at the 2015 Groundwater Monitoring report which includes the Pit Lake elevation measurements it shows that the level increased at a rate of 1.03 feet in 2014 and of 1.58 feet in 2015. So based on those two years, the average rate was 1.30 feet. The report also notes that the level is stabilizing as the pit gets to a steady state. I suspect the changes in the rate between 2014 and 2015 may reflect precipitation and such, as well.

General from BLM: What is the correct acreage? He measured less than 3000 acres, but the ROD has 3400 or 3500 acres. Does this include Weed Heights? Does this include the Wabuska Drain?

Clarification: The acreage number to use seems to vary from 3,000 acres (used in the 2002 CIP) to 3,400 acres (used in the PP, and the NPL listing summary) to 3,468 acres (used in the litigation referral letter) to 3,500 acres (in the NPL listing narrative) to 3,600 acres (used in the RI, CCSP from the State, and the final FS). We raised the issue of the inconsistent number back in October 2016 as well. Since the actual site boundaries as I recall from the guidance will be based on the extent of contiguous contamination, it probably will not be determined until the final site wide ROD? Using the 3,400 acres that was used in the PP may be the most consistent at this time. Also, the site boundaries that the acreage is based on doesn't include either Weed Heights or Wabuska Drain but that might change when they do the final ROD for the entire site.



David A. Cacciatore, Ph.D., PE, PMP

Engineering Manager

Federal Services

Environmental & Infrastructure

Tel: +1-925-288-2299

Cell: +1-925-383-9789

david.cacciatore@cbifederalservices.com

CB&I

4005 Port Chicago Highway

Suite 200

Concord, CA 94520

United States of America

www.CBI.com